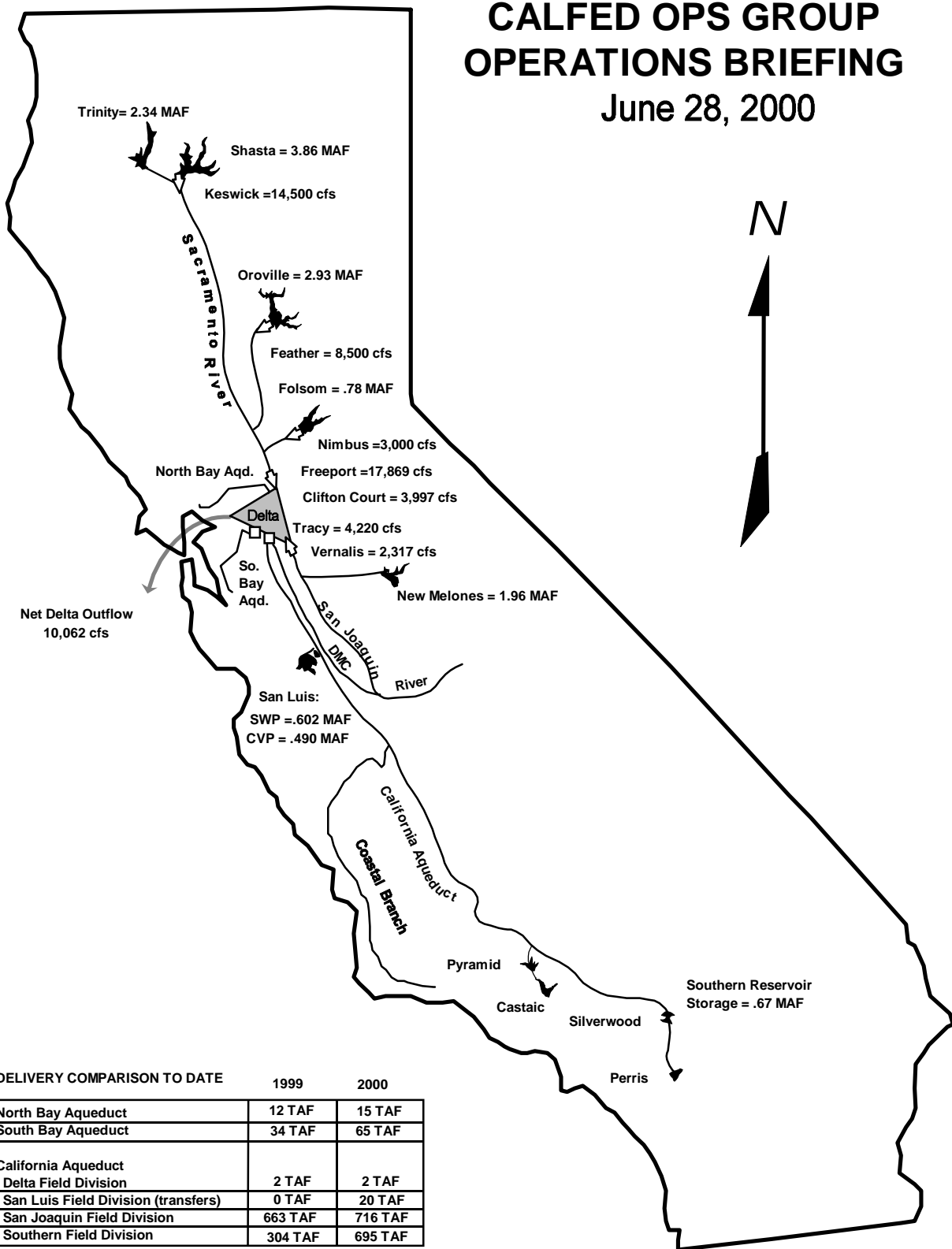


CALFED OPS GROUP OPERATIONS BRIEFING

June 28, 2000



DELIVERY COMPARISON TO DATE

	1999	2000
North Bay Aqueduct	12 TAF	15 TAF
South Bay Aqueduct	34 TAF	65 TAF
California Aqueduct		
Delta Field Division	2 TAF	2 TAF
San Luis Field Division (transfers)	0 TAF	20 TAF
San Joaquin Field Division	663 TAF	716 TAF
Southern Field Division	304 TAF	695 TAF

CURRENT SWP/CVP OPERATIONAL STATUS

DATA AS OF
June 27, 2000

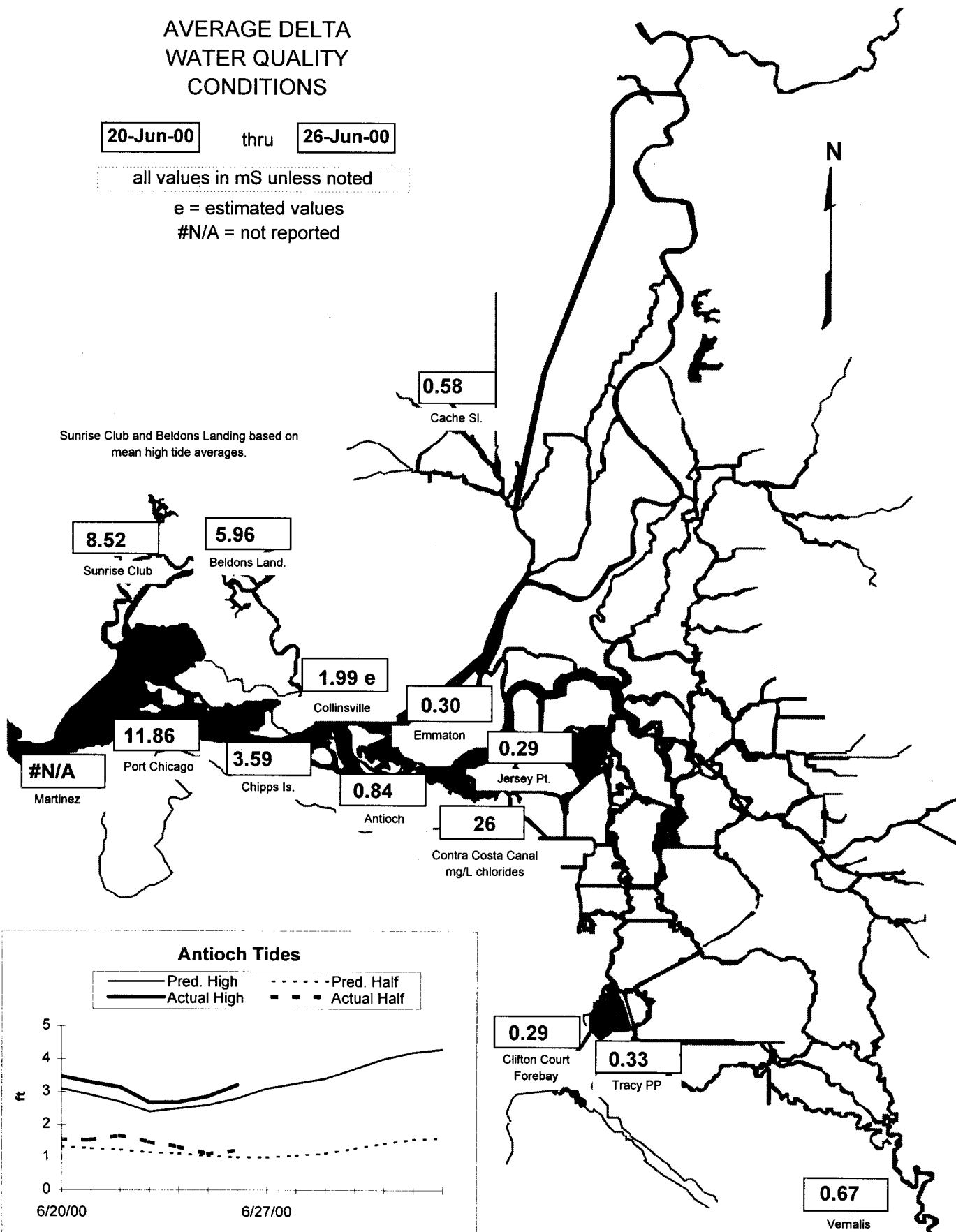
AVERAGE DELTA WATER QUALITY CONDITIONS

20-Jun-00 thru 26-Jun-00

all values in mS unless noted

e = estimated values

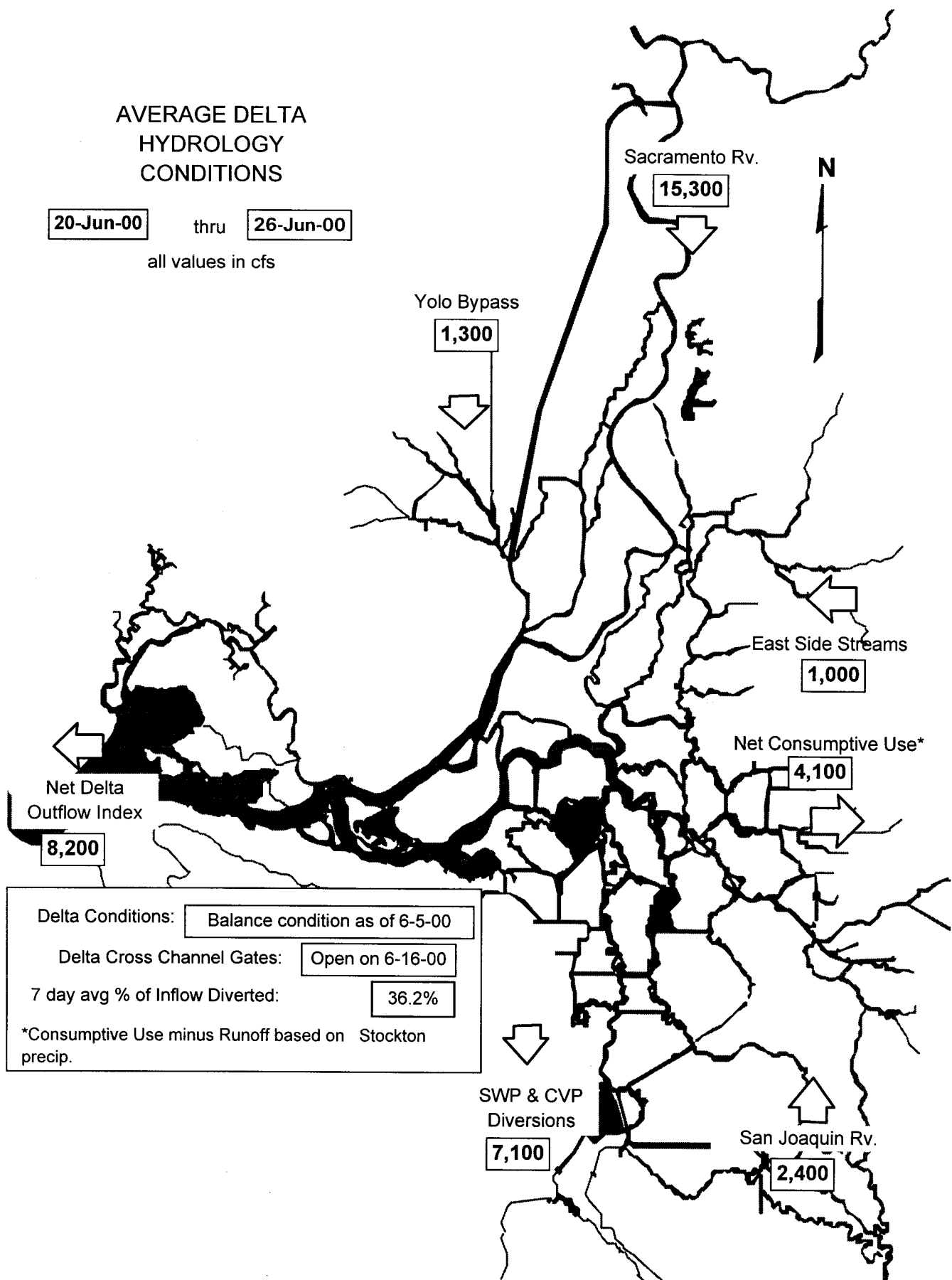
#N/A = not reported



AVERAGE DELTA HYDROLOGY CONDITIONS

20-Jun-00 thru 26-Jun-00

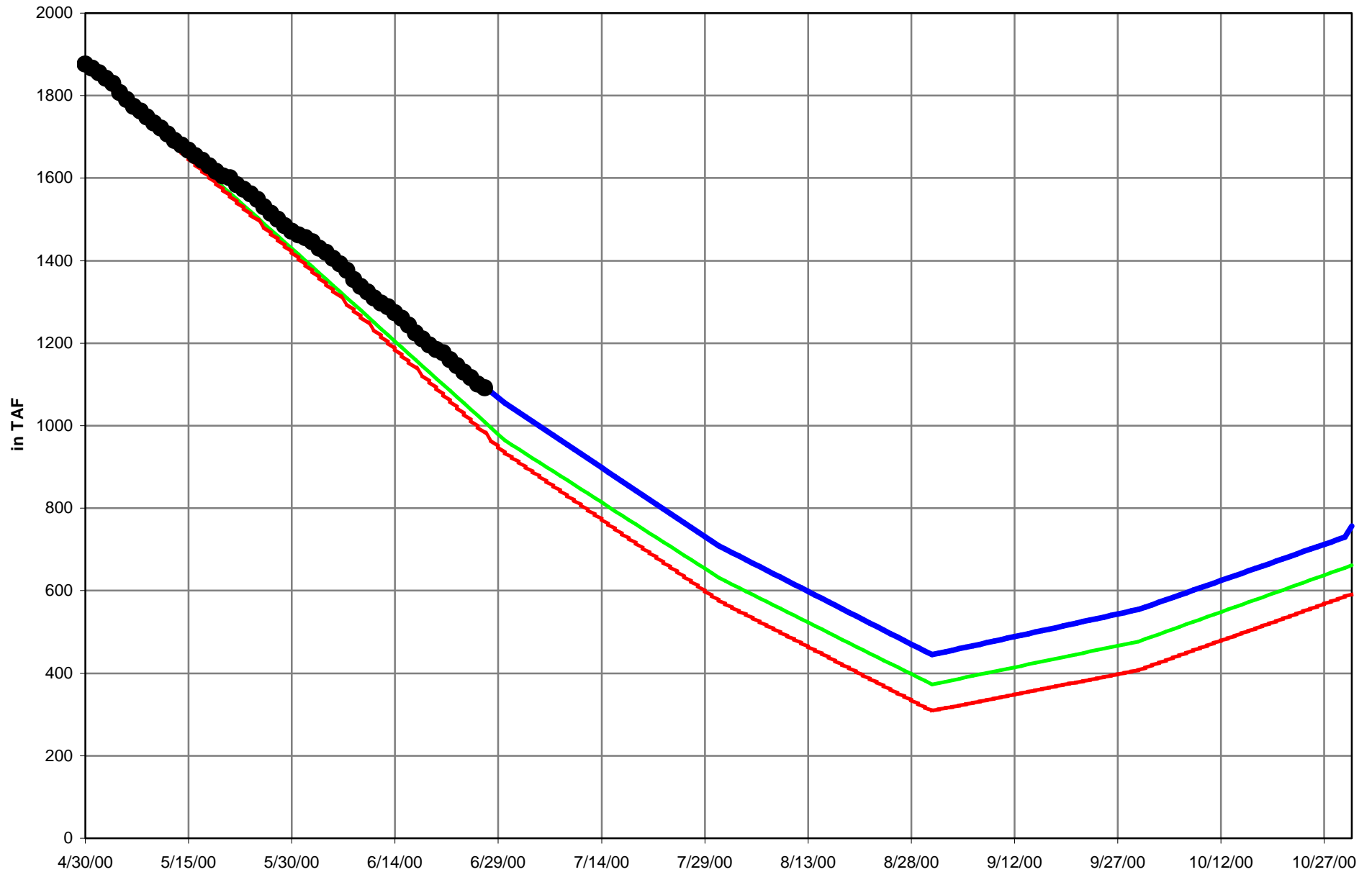
all values in cfs



Forecasted Combined San Luis Storage

Hydrology: Based on May 1 Snow Survey Forecast

50% Excd. 90% Excd. 99% Excd. Actual Storage



DRAFT

Bay-Delta Standards

DRAFT

Contained in D-1641 and the Winter-Run and Delta Smelt Biological Opinions

CRITERIA	May 00	Jun00	Jul 00
FLOW/OPERATIONAL			
<ul style="list-style-type: none"> Fish and Wildlife <ul style="list-style-type: none"> SWP/CVP Export Limits Export/Inflow Ratio Minimum Outflow - mon. <ul style="list-style-type: none"> - 7 day avg. Habitat Protection Outflow, X2 River Flows: <ul style="list-style-type: none"> @ Rio Vista - min. mon. avg. <ul style="list-style-type: none"> - 7 day average Salmon Migration <ul style="list-style-type: none"> @ Vernalis: Base -min. mon. avg. <ul style="list-style-type: none"> - 7 day average Pulse objective Delta Cross Channel Gates 	<p>greater of 1,500 cfs or 100% of 3-day avg. Vernalis flow. Per WOMT: 6/23 to 6/30, 40%</p> <p>35 % of Delta Inflow</p> <p>7,100cfs - 29,200 cfs</p> <p>Port Chicago for 9 days, Chipps Island</p> <p>Chipps Island for 15 days Collinsville for 30 days</p> <p>5000 cfs for wet year</p> <p>3420 cfs</p> <p>2736 cfs</p> <p>5480 cfs</p> <p>gates may close 4 consec. days ea. wk.</p> <p>Closed May 21 - June 15 close 14 days per CALFED Op's</p>		<p>65% of Delta Inflow</p> <p>8000 cfs</p> <p>6400 cfs</p> <p>3000 cfs for wet year</p>
WATER QUALITY STANDARDS			
<ul style="list-style-type: none"> Municipal and Industrial <ul style="list-style-type: none"> All Export Locations Contra Costa Canal Agriculture <ul style="list-style-type: none"> Western/Interior Delta Southern Delta Fish and Wildlife <ul style="list-style-type: none"> San Joaquin River Salinity Suisun Marsh Salinity 		<p>CI <= 250 mg/l</p> <p>CI <= 150 mg/l for 240 days for Wet Year Type</p> <p>Max. 14-day average EC mmhos/cm: 0.45 mS/cm</p> <p>30-day running average EC <= 0.7 mS</p> <p>14-day avg; 0.44 EC</p> <p>11.0 mhtEC</p>	
LEGEND			
Implemented under ESA Biological Opinions for Winter-Run Salmon and Delta Smelt		Water Year Classification: (June 1 forecast)	
Implemented under SWRCB Order 95-6		SRI (40-30-30 @ 50%) = 9.2 (Wet)	May 8RI: 3.62 MAF
Implemented under SWRCB D-1641		SJV (60-20-20 @75%) = 3.2 (Above Normal)	

Year 2000 CVP and SWP Water Supply Impact and Recovery Plan

Based on May 1 - 90% Exceedence Hydrology												Impact Summary
	Apr	May 1-15	May 16-31	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-01	
SWP												
b(2) - WQCP												
SWP Export Impacts (b(2) 2000)	-6 ¹	-8 ¹	-36 ⁴									-50
SWP delta smelt B.O. Export Impacts	-22 ²	-24 ²	-36 ⁴									-82
SWP Export Makeup (b(2) 2000)				36 ⁵	14 ⁵							50
SWP delta smelt B.O. Export Makeup				36 ⁶	6 ⁷	20 ⁷	20 ⁷					82
Oroville Storage Changes	28 ³	19 ³		-12 ⁶	-20	-20	-20					-25
Net Impacts												-25
SWP Export from AFRP									?	?		?
Negotiated 1999 SWP Makeup								35 ⁸	35 ⁸			70
CVP												
b(2) - WQCP												
Cum. CVP Storage Changes (Oct - Jan)												-6
CVP Flow Impacts (Feb.-Sep)	-51	-7		16	1	2	-18					1
CVP Export Impacts	-52	-78		-65	-2	-2	-2					-71
Sub total												-76
WQCP - Base												
Cum. CVP Storage Changes (Oct - Jan)												0
CVP Flow Impacts (Feb.-Sep)	-179	-137		-77	0	94	78					98
CVP Export Impacts	-19	-25		72	0	-95	-101					-124
Sub total												-26
Grand Total												-102
CVP Water Supply Augmentation Actions												
Potential Use for JPOD												0
Water Purchases south of the Delta					63		10					73

¹ Impacts for dropping SWP exports from the delta smelt biological opinion objective to actual export.

² Impacts for dropping SWP exports from 50% of Vernalis base flow to the delta smelt biological opinion objective.

³ Most of the reduced SWP exports were backed into Oroville. However, approximately 13 taf of impact (10 taf B.O., 3 taf b(2)) occurred during a period of surplus flows (May 9 - 15) and were not backed upstream.

⁴ An additional -72 taf of surplus flow (35 taf for b(2) and 37 taf for delta smelt take) was lost due to curtailments for delta smelt in the last half of May.

⁵ Late May b(2) impacts (35 taf) are made up by pumping water resulting from CVP b(2) curtailments in June. b(2) impacts backed upstream during pulse flow (11 taf) are released and pumped in July using the 500 cfs increase at Banks. b(2) surplus water impact (3 taf) is shifted upstream in July by the same method.

⁶ Delta smelt B.O. surplus water impacts (37 taf) in late May are made up by pumping water resulting from CVP export curtailments in June (25 taf) and by pumping greater than 35% E/I ratio (12 taf) supported by Oroville releases at the tail end of June. Net result is a 12 taf upstream impact.

⁷ Delta smelt B.O. impacts that were backed upstream into Oroville during the pulse flow (36 taf) are released and pumped in July, August and September. The 500 cfs increase at Banks will be used for at least some of this makeup. ~10 taf of delta smelt B.O. surplus water impact (May 9-15) is shifted upstream using the same method.

⁸ Additional SWP export supported by CVP upstream releases in October and November. The 70 taf was negotiated between DOI and DWR for 1999 make up.

Special Note: CVP b(2) impact summary is for the period Oct. '99 through Sept. '00.

Projected Delta Operations and Conditions.

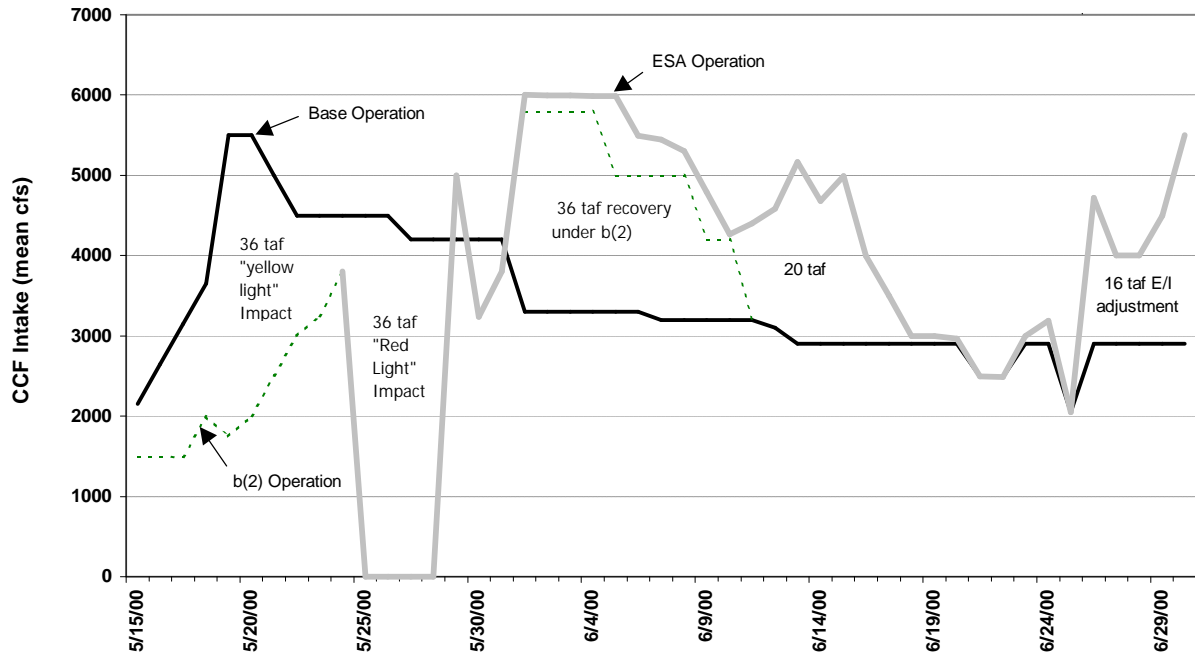
Case: Includes b(2) and Delta Smelt BO Actions

Hydrology:	90% Exceedence				90% Exceedence							
	<u>Jun-00</u>	<u>Jul-00</u>	<u>Aug-00</u>	<u>Sep-00</u>	<u>Oct-00</u>	<u>Nov-00</u>	<u>Dec-00</u>	<u>Jan-01</u>	<u>Feb-01</u>	<u>Mar-01</u>	<u>Apr-01</u>	<u>May-01</u>
E/I Ratio	36%	43%	51%	58%	57%	54%	63%	64%	45%	35%	20%	22%
Delta Outflow	8,800 cfs	8,000 cfs	5,000 cfs	4,000 cfs	4,000 cfs	4,500 cfs	4,500 cfs	5,300 cfs	7,000 cfs	8,150 cfs	11,000 cfs	10,000 cfs
Tracy Export	3,109 cfs	4,407 cfs	4,489 cfs	4,285 cfs	4,066 cfs	4,033 cfs	4,115 cfs	4,163 cfs	2,827 cfs	2,374 cfs	1,465 cfs	1,726 cfs
CVP @ Banks	0 cfs	358 cfs	358 cfs	370 cfs	195 cfs	0 cfs	0 cfs	0 cfs	0 cfs	0 cfs	0 cfs	0 cfs
Banks Export	4,302 cfs	5,107 cfs	5,448 cfs	5,781 cfs	4,472 cfs	3,126 cfs	4,440 cfs	4,163 cfs	2,827 cfs	2,374 cfs	1,513 cfs	1,711 cfs
Total Export	7,411 cfs	9,872 cfs	10,295 cfs	10,436 cfs	8,733 cfs	7,159 cfs	8,555 cfs	8,327 cfs	5,654 cfs	4,749 cfs	2,978 cfs	3,438 cfs
Sac @ Freeport	17,400 cfs	20,800 cfs	18,000 cfs	16,100 cfs	13,300 cfs	11,300 cfs	11,800 cfs	11,300 cfs	10,200 cfs	10,900 cfs	12,700 cfs	13,500 cfs
SJ @ Vernalis	2,360 cfs	1,690 cfs	1,660 cfs	1,450 cfs	1,540 cfs	1,350 cfs	1,390 cfs	1,420 cfs	1,840 cfs	1,970 cfs	2,590 cfs	2,320 cfs
Oroville Storage	2,892 TAF	2,413 TAF	1,982 TAF	1,703 TAF	1,472 TAF	1,412 TAF	1,355 TAF	1,458 TAF	1,607 TAF	1,811 TAF	1,737 TAF	1,545 TAF
Oroville Release	9,700 cfs	8,330 cfs	7,650 cfs	6,220 cfs	4,200 cfs	2,500 cfs	3,150 cfs	1,250 cfs	1,250 cfs	1,050 cfs	5,050 cfs	5,500 cfs
Shasta Storage	3,819 TAF	3,280 TAF	2,888 TAF	2,722 TAF	2,569 TAF	2,490 TAF	2,486 TAF	2,572 TAF	2,764 TAF	3,089 TAF	3,213 TAF	3,031 TAF
Keswick Release	12,800 cfs	14,735 cfs	11,500 cfs	7,300 cfs	6,400 cfs	5,471 cfs	4,500 cfs	4,000 cfs	3,600 cfs	3,600 cfs	6,000 cfs	9,600 cfs
Folsom Storage	730 TAF	648 TAF	591 TAF	550 TAF	466 TAF	400 TAF	362 TAF	352 TAF	401 TAF	512 TAF	601 TAF	653 TAF
Nimbus Release	2,700 cfs	2,580 cfs	2,080 cfs	1,750 cfs	2,000 cfs	1,850 cfs	1,500 cfs	1,200 cfs	1,000 cfs	1,000 cfs	2,000 cfs	2,000 cfs
CVP SL Storage	459 TAF	327 TAF	169 TAF	230 TAF	319 TAF	410 TAF	606 TAF	785 TAF	833 TAF	797 TAF	639 TAF	500 TAF
SWP SL Storage	582 TAF	332 TAF	212 TAF	247 TAF	287 TAF	241 TAF	243 TAF	425 TAF	505 TAF	538 TAF	485 TAF	272 TAF

Based on CVP's June 90% b(2) forecast

Delta Smelt Impact and Recovery

SWP Operations



CVP Operations

